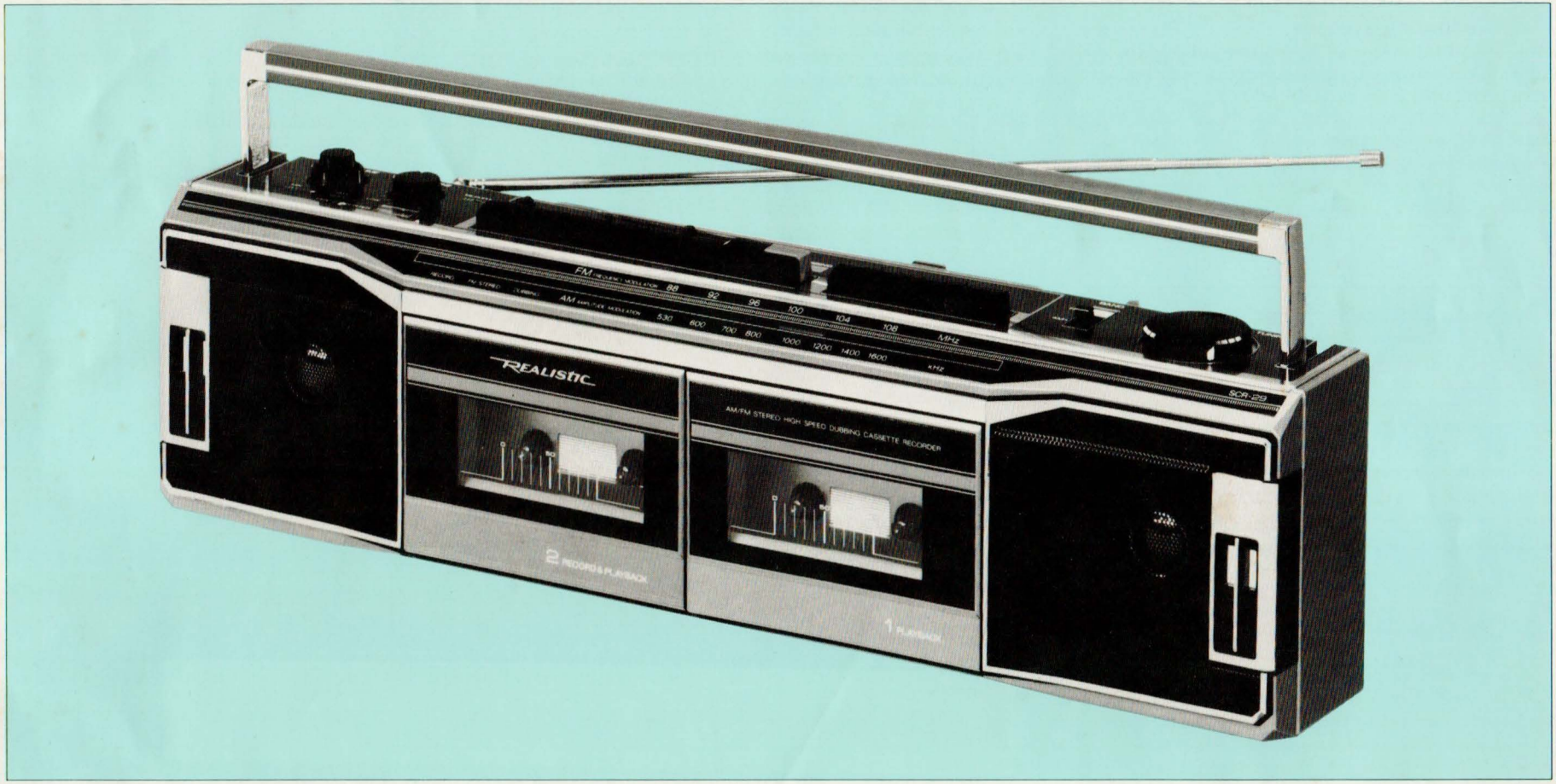
OWNER'S MANUAL

Cat. No. 14-798

SCR-29
AM/FM STEREO HIGH SPEED DUBBING CASSETTE RECORDER

PLEASE READ BEFORE USING THIS EQUIPMENT



REALISTIC®

With REALISTIC® SCR-29's new high speed dubbing system, you can reproduce your favorite cassette tapes at twice the normal tape speed for a tremendous saving in recording time. REALISTIC SCR-29 double-cassette deck is expertly designed to cope with high motor speeds for extended periods.

One Push Dubbing System

REALISTIC SCR-29 synchronized one-push dubbing system makes duplicating tapes simpler than ever. One-push operation of the dubbing system at both fast and normal speeds ensures the starting of both tapes at exactly the same moment.

One Push Recording System

The RECORD button works independently, without pushing PLAY. One-push recording keeps your timing right. You need not miss a beat.

Continuous Play Function

In the continuous play mode, as soon as one tape finishes playback, the other tape begins playback automatically to keep the sound going as long as you wish.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

SPECIAL FEATURES

- RECORD Indicator (LED) tells you a tape in TAPE 2 is being recorded.
- FM STEREO Indicator (LED) tells you when the FM station is broadcasting in stereo.
- DUBBING Indicator (LED) tells you a tape in TAPE 2 is being duplicated.
- Left and Right separate VOLUME controls to adjust volume and balance for your desired listening level. When you listen at a low volume level, the auto-loudness circuit automatically enhances bass and treble to compensate for the human ear's reduced sensitivity.
- Two built-in condenser MICROPHONEs pick up sound on separate channels, and the recorded material is reproduced in stereo.
- LEFT and RIGHT external MICROPHONE Jacks let you record with external microphones or other external sources.
- BEAT CANCEL switch lets you cancel an irritating beat sound, which can sometimes be heard that is caused by the interaction between the recording bias frequency and the radio frequency.
- Auto-stop automatically disengages the mechanism when the tape reaches the end of play or record.
- Built-in Automatic Level Control automatically adjusts the recording level for perfect recordings every time.
- PAUSE Button allows you to temporarily stop in the play or record mode without disengaging the function.
- CUE and REVIEW functions allow you to locate easily a desired portion of the tape.
- SCR-29 is battery powered by using an external adapters (required 6 D type batteries), but can be powered through the 9 volt DC jack.

For your own protection, we urge you to record the serial number of the unit in the space provided. You'll find the serial number on the back panel.

Serial Number: _____

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

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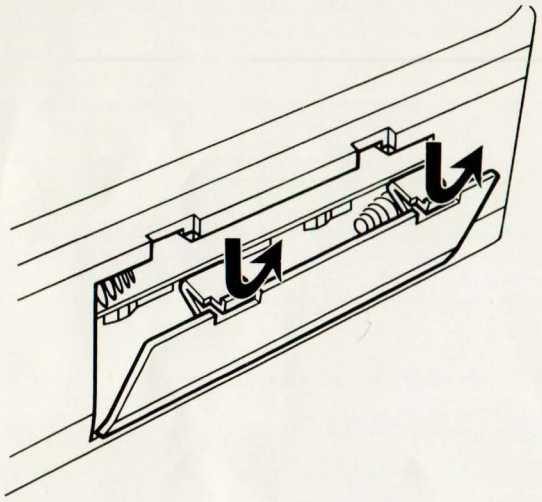
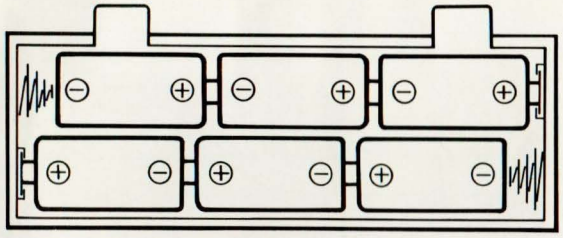
PREPARATION

USING BATTERIES

1. Open the battery compartment lid on the rear by pushing it in the direction of the arrow.



2. Insert 6 D-size batteries. We recommend our 23-550 for extra long life.
   Observe correct battery polarity (+ and –) as shown in the compartment.



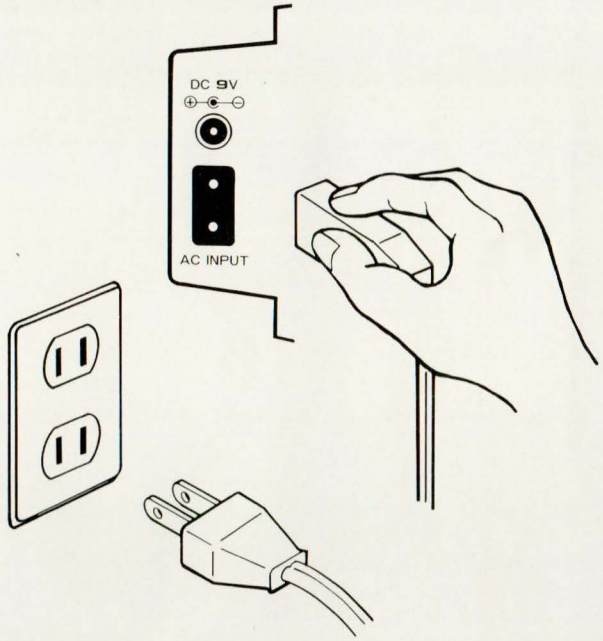
3. Close the battery compartment cover.

If you notice that the sound has become weak or distorted, playing speed has slowed, this is an indication that your batteries are worn out. Be sure to replace them immediately with new ones.
The cassette player requires more power than the radio. So batteries that have enough power to run the radio may be too weak for tape playback or recording.

Warning: If you don't plan to use your radio for several weeks, remove the batteries. When they become extremely weak or exhausted, even long-life or "leak proof" batteries can damage any electronic device.

USING AC CURRENT

Connect the small plug of the AC cord (included) into the AC INPUT jack. Insert the larger plug of the AC cord into a standard AC wall outlet.



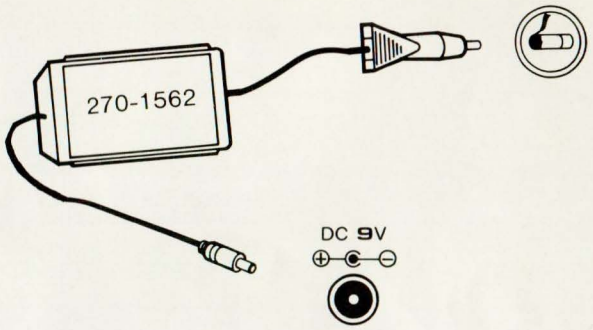
Note: When you are using the AC cord, the internal batteries are automatically disconnected.

Warning: Never leave the cord connected to an AC outlet when the other end is removed from the AC INPUT jack on the unit. This presents a serious SHOCK HAZARD.

USING VEHICLE DC CURRENT

You can power the SCR-29 from the cigarette lighter socket in your vehicle, provided it has a 12-volt, **negative** ground system. Use only our 270-1562 DC adapter for this. Be sure to set the voltage switch to 9V and the tip at **negative**. Any other voltage setting will damage the unit.

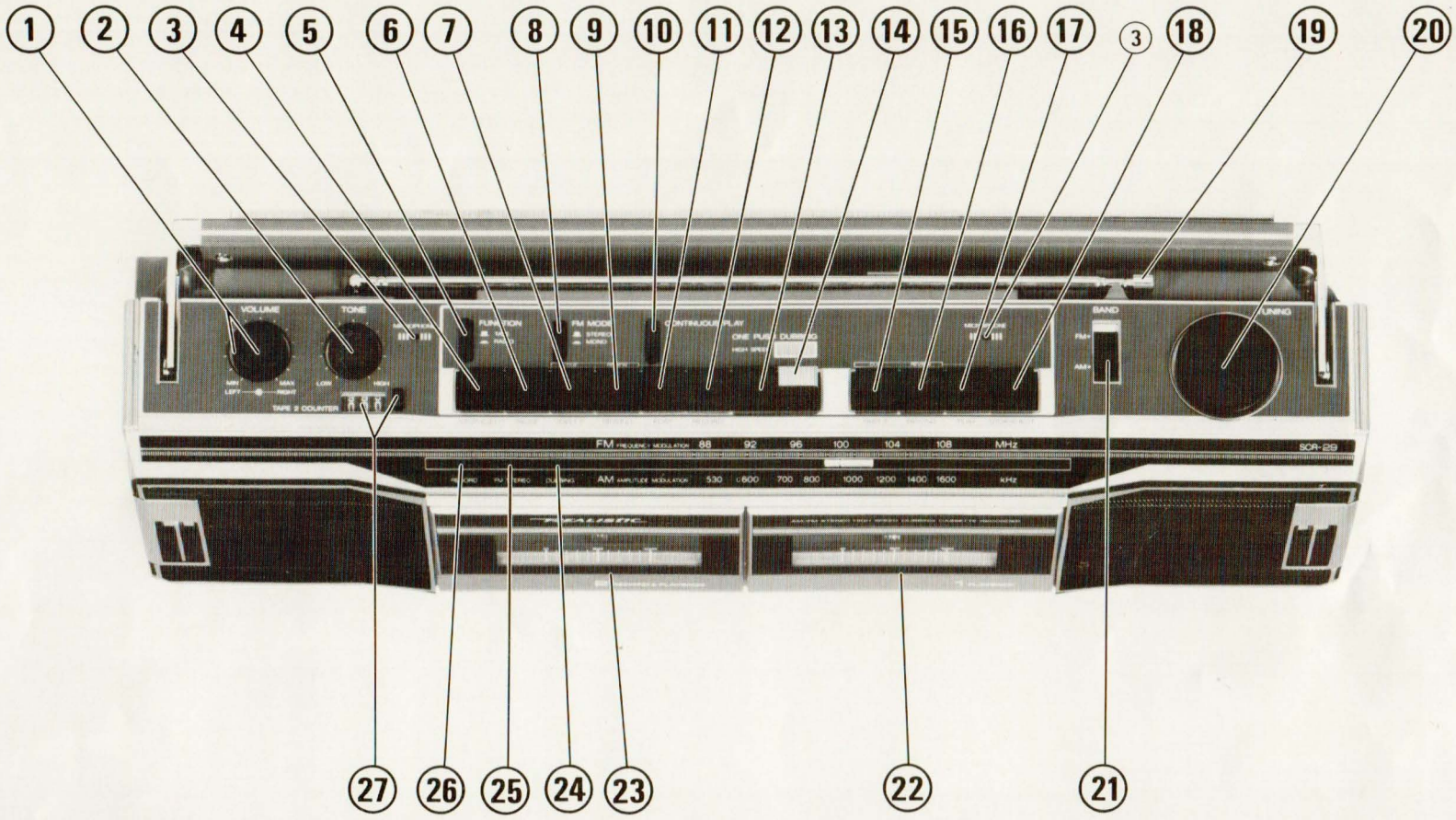
Cigarette Lighter Socket



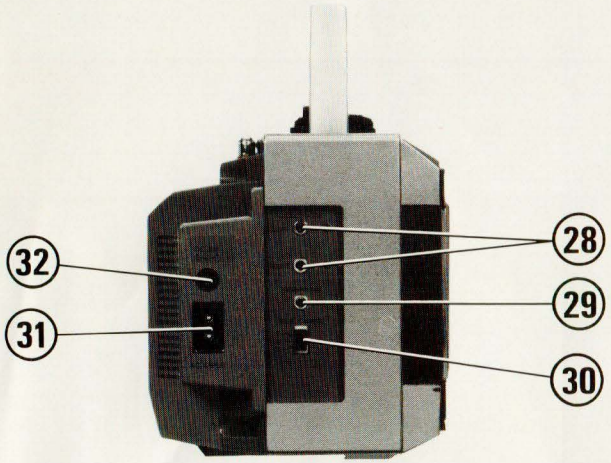
Connect the submini plug to the socket of the adapter, and connect it to the DC 9V jack on the side of your unit. Plug the other end into the cigarette lighter socket. The internal batteries are automatically disconnected.

Caution: While it is plugged into the cigarette lighter DC power, do not let the opposite end of the adapter contact any metal part of the car. It could blow a fuse or damage the adapter.

CONTROLS AND FUNCTIONS



1. LEFT/RIGHT VOLUME controls
2. TONE control
3. Built-in MICROPHONEs
4. TAPE 2 STOP/EJECT button
5. FUNCTION button
6. TAPE 2 PAUSE button
7. TAPE 2 FAST-Forward/CUE button
8. FM MODE button
9. TAPE 2 REWIND/REVIEW button
10. CONTINUOUS PLAY button
11. TAPE 2 PLAY button
12. TAPE 2 RECORD button
13. ONE PUSH DUBBING button
14. HIGH SPEED button
15. TAPE 1 FAST-Forward/CUE button
16. TAPE 1 REWIND/REVIEW button
17. TAPE 1 PLAY button
18. TAPE 1 STOP/EJECT button
19. Telescopic antenna
20. TUNING control
21. BAND switch
22. TAPE 1 (PLAYBACK) cassette compartment
23. TAPE 2 (RECORD/PLAYBACK) cassette compartment
24. DUBBING indicator
25. FM STEREO indicator
26. RECORD indicator
27. TAPE 2 COUNTER and RESET button
28. LEFT and RIGHT external MICROPHONE jacks (3.5mm diameter)
29. HEADPHONE jack (3.5mm diameter)
30. BEAT CANCEL switch
31. AC INPUT jack
32. DC 9V jack



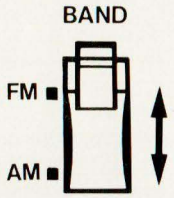
1. **LEFT/RIGHT VOLUME Controls**
   Adjust the sound level from both speakers.
2. **TONE Control**
   Turn clockwise to enhance high frequencies and counterclokwise to enhance low frequencies.
3. **Built-in MICROPHONEs**
   Pick up sound for live recording.
4. **TAPE 2 STOP/EJECT Button**
   Press once to stop tape motion on TAPE 2. Press once more to open the casssette compartment on TAPE 2.
5. **FUNCTION Button**
   Selects the program source.
   RADIO: For listening to or recording from the radio.
   TAPE: For tape playback, microphone recording or dubbing.
6. **TAPE 2 PAUSE Button**
   Stops playback or recording in TAPE 2 temporarily. Press again to resume playback/recording.
7. **TAPE 2 FAST Forward/CUE Button**
   Advances the tape in TAPE 2 rapidly. Pressed during playback, the tape is scanned rapidly in forward direction.
8. **FM MODE Button**
   Selects the FM radio mode. Normally the button should be set to STEREO. When an FM station broadcasting in stereo is tuned in, the FM STEREO indicator will light. For weaker, noisy stations, set the button to MONO. The signal will no longer be heard in stereo, however overall reception quality will be improved.
9. **TAPE 2 REWIND/REVIEW Button**
   Rewinds the tape in TAPE 2 rapidly. Pressed during playback, the tape is scanned rapidly in reverse.
10. **CONTINUOUS PLAY Button**
    Selects the tape playback transport mode.
    ON: For playback of pre-recorded tapes from TAPE 1 to TAPE 2.
    OFF: For playback of a pre-recorded tape on TAPE 1 or TAPE 2.
11. **TAPE 2 PLAY Button**
    Press for playback of pre-recorded tapes on TAPE 2.
12. **TAPE 2 RECORD Button**
    Press this button to start recording. The TAPE 2 PLAY button automatically locks down.
13. **DUBBING Button**
    Press once to start normal speed dubbing.
14. **HIGH SPEED Dubbing Button**
    Press to start dubbing at twice the normal speed.
15. **TAPE 1 FAST Forward/CUE Button**
    Advances the tape in TAPE 1 rapidly. Pressed during playback, the tape is scanned rapidly in forward direction.
16. **TAPE 1 REWIND/REVIEW Button**
    Rewinds the tape in TAPE 1 rapidly. Pressed during playback, the tape is scanned rapidly in reverse.
17. **TAPE 1 PLAY Button**
    Press for playback of pre-recorded tapes on TAPE 1.
18. **TAPE 1 STOP/EJECT Button**
    Press once to stop tape motion on TAPE 1. Press once more to open the casssette compartment on TAPE 1.
19. **Telescopic Antenna**
    Extend this antenna for greater FM-broadcast reception.
20. **TUNING Control**
    Rotate to select stations.
21. **BAND Select Switch**
    Selects the radio band.
    FM: For listening to or recording from the FM band.
    AM: For listening to or recording from the AM band.
22. **TAPE 1 Cassette Compartment (playback only)**
    Holds the cassette for playback on TAPE 1.
23. **TAPE 2 Cassette Compartment (record/playback)**
    Holds the cassette for playback or recording on TAPE 2.
24. **DUBBING Indicator**
    Lights during tape dubbing.
25. **FM STEREO Indicator**
    Lights when an FM station broadcasting in stereo is tuned in with the FM MODE button set to ON.
26. **RECORD Indicator**
    Lights while the set is in record.
27. **TAPE 2 COUNTER and RESET Button**
    Used to quickly locate a particular portion of the tape in TAPE 2. Press the RESET button to reset the COUNTER to "000".
28. **LEFT and RIGHT external MICROPHONE Jacks (3.5mm diameter)**
    Accepts external microphones for live recording.
29. **HEADPHONE Jack (3.5mm diameter)**
    Accepts mini stereo headphones with a 1/8" (3.5mm) plug for private listening.
30. **BEAT CANCEL Switch**
    When recording AM programs onto tape, an irritating beat sound may sometimes be heard, caused by the interaction of the recording bias frequency and the radio frequency. If this occurs, set the BEAT CANCEL switch, on the left of the unit, to the other position.
31. **AC INPUT Jack**
    Used for AC operation. Connect the small plug of the AC cord (included) to this jack and the larger plug to a standard AC wall outlet.
32. **DC 9V Jack**
    Used for car battery operation. Connect the small plug from the car battery adapter to this jack and the other larger plug to the cigarette lighter socket of the car.

OPERATION

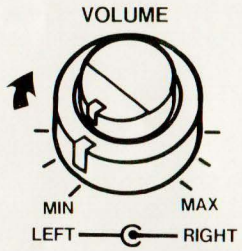
RADIO RECEPTION

1. Set the FUNCTION button to RADIO (button IN).

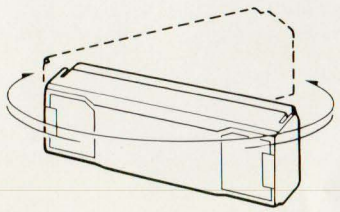
2. Set the BAND switch to AM or FM.



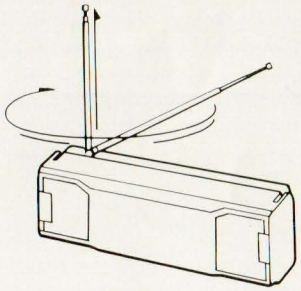
3. Turn the LEFT and RIGHT VOLUME controls up slightly (from 0) to make tuning easier.



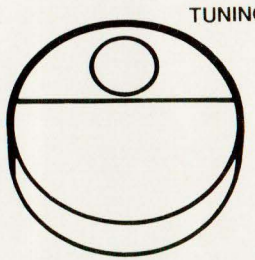
4. For AM reception, rotate the unit to obtain the clearest reception possible.



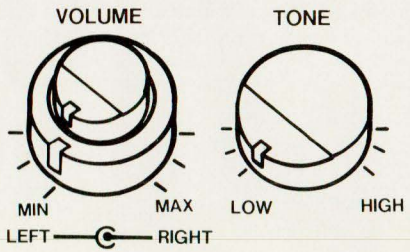
For FM reception, pull out the antenna and determine the direction, length and angle for the best reception.



5. Rotate the TUNING control to tune in your favorite station until you get a clear strong signal.



6. Adjust the LEFT and RIGHT VOLUME and TONE controls to your desired listening level.



7. To switch the radio off, press the FUNCTION button to release the button to the out position.

USING THE FM MODE BUTTON

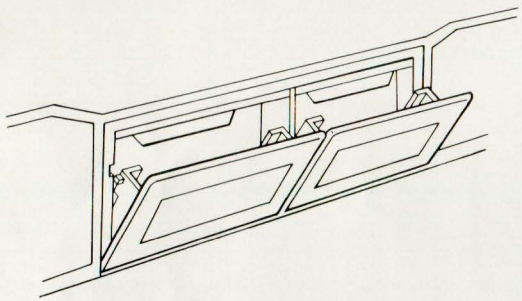
Press the FM MODE button to STEREO (button OUT) for receiving FM stereo broadcasts. The FM STEREO indicator will light when the FM broadcast is being received in stereo.

If it is difficult to receive clearly an FM stereo broadcast (excessive noise, FM STEREO indicator flickers), press the FM MODE button to MONO (button IN). This makes reception clearer. However, the broadcast will be received in the monaural mode.

Cassette Operation

INDIVIDUAL PLAYBACK

1. Open the TAPE 1 or 2 cassette compartment lid by pressing one of the STOP/EJECT buttons.

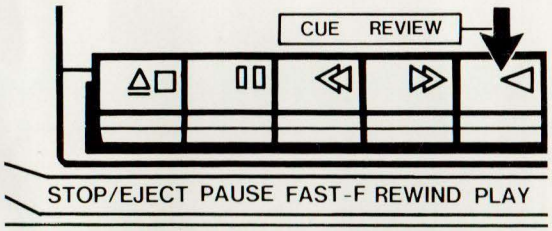


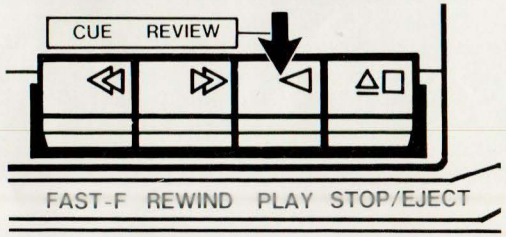
2. Insert a cassette with the full reel on the right (seen through window), the side to be played facing you and the exposed tape upward.

3. Press lightly and close the cassette compartment lids.

4. Set the FUNCTION button to TAPE (button OUT).

5. Press the PLAY button. The recorder plays the cassette automatically.





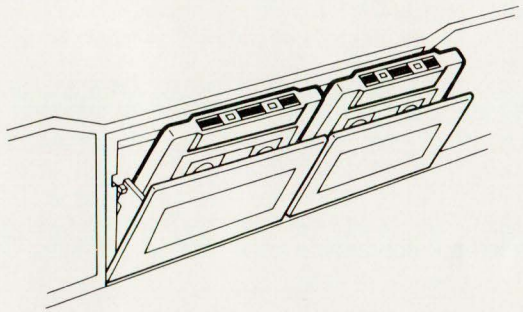
6. Adjust the LEFT and RIGHT VOLUME and TONE controls to your desired listening level.

7. To stop playing back, press the STOP/EJECT button. If the end of the tape is reached during playback, the unit stops automatically.

CONTINUOUS PLAYBACK (TAPE 1 TO TAPE 2)

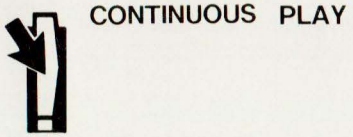
Continuous playback starts with TAPE 1 first and then TAPE 2.

1. Insert two cassettes with the full reel on the right (seen through window), the side to be played facing you and the exposed tape upward. Then press and close the compartment lids.

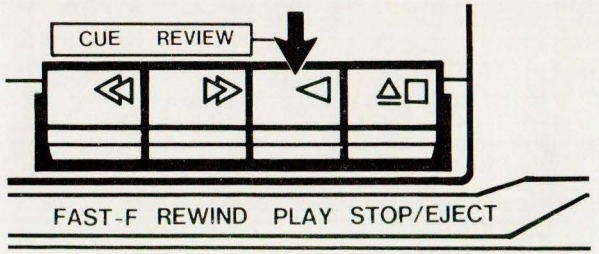


2. Set the FUNCTION button to TAPE (button out).

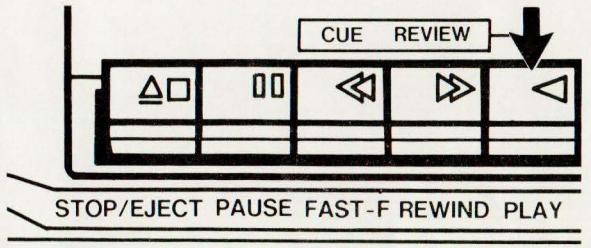
3. Press the **CONTINUOUS PLAY** button to ON (button IN).



4. Press the **TAPE 1 PLAY** button. The TAPE 1 begins playing back.



5. During playback in TAPE 1, press the **TAPE 2 PLAY** button to set TAPE 2 to the standby mode for playback.

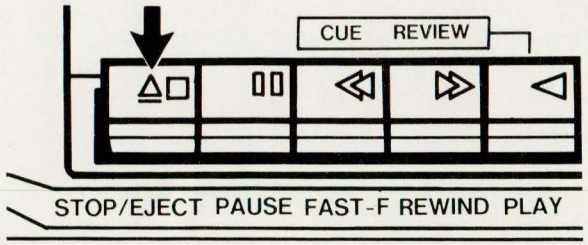


6. Adjust the LEFT and RIGHT VOLUME and TONE controls to the desired listening level.

7. When the TAPE 1 is wound completely to the left hand reel, TAPE 1 will stop automatically and TAPE 2 will begin playing back.

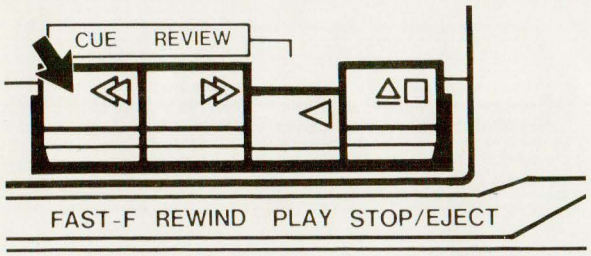
8. To pause while playing back in TAPE 2, press the TAPE 2 PAUSE button.

9. To stop the TAPE 2 playback, press the TAPE 2 STOP/EJECT button.

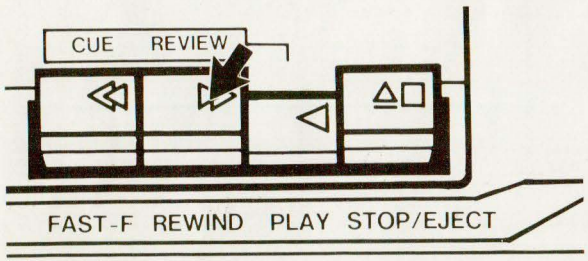


USING CUE AND REVIEW

To locate a specific portion of the tape during play, advance the tape rapidly by pressing the FAST-F/CUE button.



To back up to a previous selection, press the REWIND/REVIEW button.



The recorded sound will be heard as an aid to locate the specific portion on the tape. Cue and review affect both TAPE 1 and 2.

USING FAST FORWARD AND REWIND

From the stop position, press the FAST-F/CUE button or the REWIND/REVIEW button for rapid advancement or rewinding the tape. The button will lock down and tape will wind at high speed to the end of the tape. If you wish to stop prior to the end, press the STOP/EJECT button.

The built-in auto-stop feature automatically stops tape movement and turns the unit off at the end of the tape either in play or record operation. Open the cassette compartment lid to remove the cassette.

The cassette has two sides for playing or recording. When one side is complete, stop the mechanism, remove the cassette and turn it over. Then you can play or record on the other side.

PREPARING FOR THE DUBBING OPERATION

1. Insert a pre-recorded cassette into the TAPE 1 cassette compartment and a blank cassette into the TAPE 2 cassette compartment.

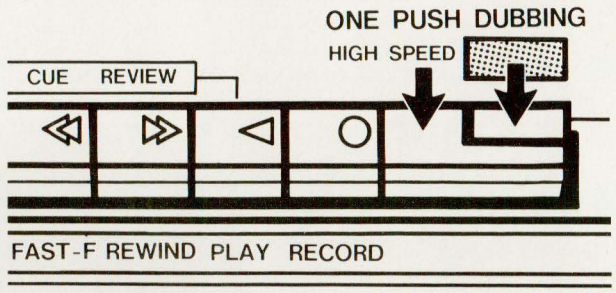
2. Set the FUNCTION button to TAPE.

Caution: Do not plug in the external microphones during the dubbing operation and recording radio program.

HIGH SPEED DUBBING

High-speed dubbing operates at **twice** the normal dubbing speed.

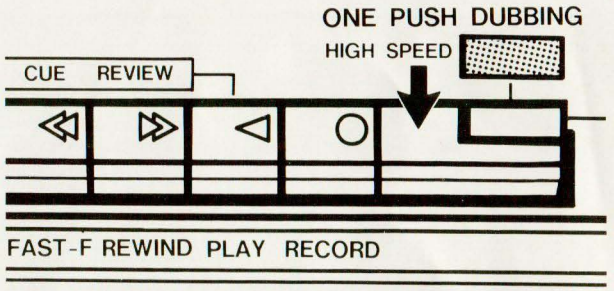
1. Press the **DUBBING** and **HIGH SPEED** buttons simultaneously. The HIGH SPEED button, the TAPE 1 PLAY button and the TAPE 2 RECORD and PLAY buttons lock down simultaneously. (The DUBBING button is not locked.) The RECORD and DUBBING indicators will light. You are now dubbing.



2. To stop dubbing, press the STOP/EJECT buttons for both TAPE 1 and TAPE 2 simultaneously.

NORMAL SPEED DUBBING

1. Press the **DUBBING** button only. The TAPE 1 PLAY button and TAPE 2 RECORD and PLAY buttons lock down simultaneously. The RECORD and DUBBING indicator lights. You are now dubbing.



2. To stop dubbing, press the STOP/EJECT buttons for both TAPE 1 and TAPE 2 simultaneously.

Notes:

- You can monitor TAPE 1 during the dubbing. Adjust VOLUME and TONE as desired. The recording level is set automatically by the ALC (Automatic Level Control) circuit, so the setting of these controls does not affect the dubbing sound.
- To stop dubbing before reaching the end, press STOP/EJECT 2 to disengage the TAPE 2 mechanism. Next, press STOP/EJECT 1 to disengage the TAPE 1 mechanism.

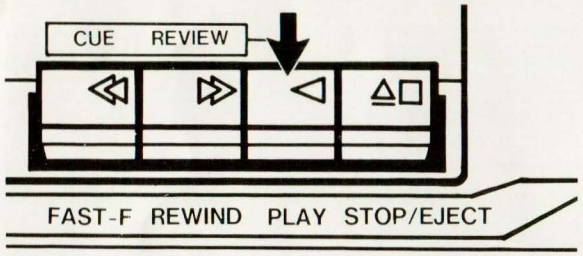
Note: Be sure to follow this order: stop TAPE 2 first, then stop TAPE 1. If you reverse the order, the sound picked up by the built-in microphone will be recorded on TAPE 2 after you stop the TAPE 1.

- When the length of tape 1 is shorter than tape 2, PLAY 1 is released automatically at the end and dubbing stops automatically. Press STOP/EJECT 2 to disengage the TAPE 2 mechanism immediately to prevent recording the sounds picked up by built-in microphones.
- When the length of tape 1 is longer than tape 2, the mechanism of TAPE 2 is automatically disengaged at the end of tape 2 but TAPE 1 keeps on playing until the end of tape 1.
- This product is for use with normal bias tape.

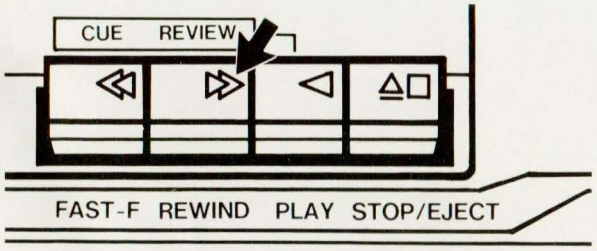
EDITING (MANUAL DUBBING)

To use the dubbing function to edit a tape, proceed as follows:

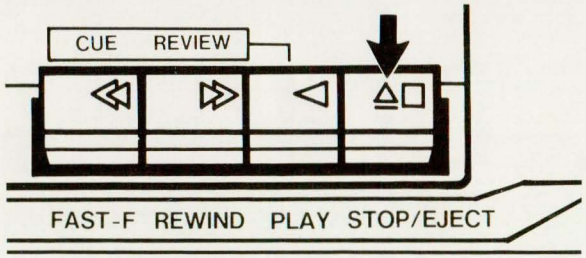
1. Perform steps of PREPARING FOR THE DUBBING OPERATION.
2. Press the TAPE 1 PLAY button.



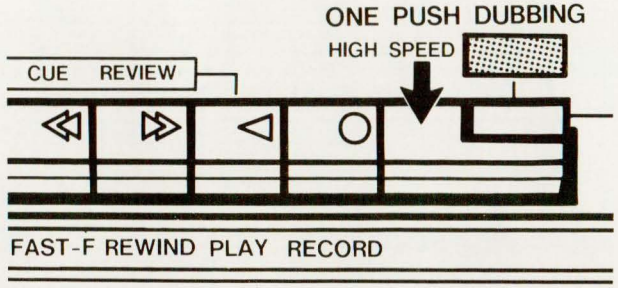
3. Press the TAPE 1 FAST-F/CUE or TAPE 1 REWIND/REVIEW button to quickly locate the portion of the tape to be edited.



4. When the desired portion of the tape has been located, press the TAPE 1 STOP/EJECT button.



5. Press the DUBBING button. You can speed up the dubbing process by using the HIGH SPEED dubbing button to duplicate quickly the original tape.

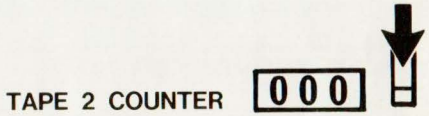


6. Repeat steps 2 through 5 as described above to edit additional portions of the tape.
7. To stop dubbing, press the STOP/EJECT buttons for both TAPE 1 and TAPE 2 simultaneously.

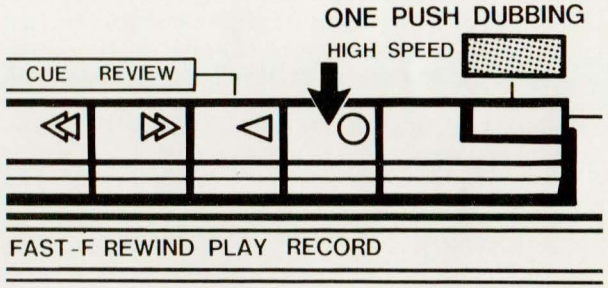
RECORDING RADIO PROGRAMS

1. Set the FUNCTION button to RADIO and insert a cassette into the TAPE 2 cassette compartment with the full reel on the right.

2. Select the band and tune in the desired radio program. Follow the instructions under RADIO RECEPTION.
3. Set the tape COUNTER to 000 by pressing the RESET button. Observe the reading on the COUNTER at the start and finish of each recording and note these on the cassette.



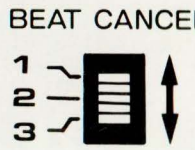
4. Press the TAPE 2 RECORD button. The TAPE 2 PLAY button locks down simultaneously. Now you are recording.



5. Adjust the LEFT and RIGHT VOLUME and TONE controls to the desired volume for your listening preference. The automatic level control circuit sets the proper recording level. Adjusting these controls does not affect the recording.

6. To stop recording, press the TAPE 2 STOP/EJECT button. The radio, however, remains tuned in.

Hints: When recording an AM radio program on tape, an irritating beat sound may sometimes be heard caused by the interaction of the recording bias frequency and the radio frequency. If this occurs, set the BEAT CANCEL switch (located on the left of the unit) to another position.



RECORDING WITH THE INTERNAL MICROPHONES

1. Be sure nothing is plugged into the L and R MICROPHONE jacks on left side of the unit.

2. Insert a blank cassette and press the RESET button to move the COUNTER to "000."

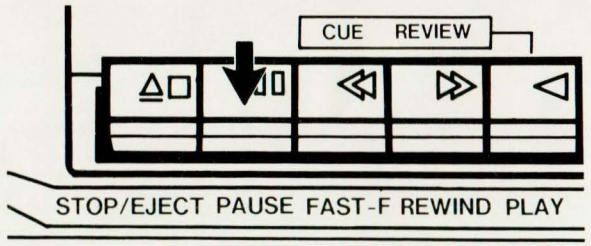
3. Set the FUNCTION button to TAPE.

4. Press the TAPE 2 RECORD button. The TAPE 2 PLAY button will lock down simultaneously. The RECORD indicator will light to let you know the recorder is prepared to record upon reception of an audible signal.
   Talk normally into the built-in MICROPHONEs. The recorder will be recorded in stereo.

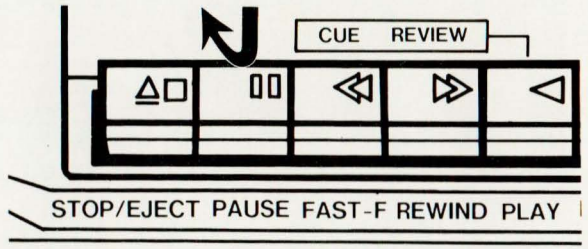
Note: The built-in automatic-level control circuit automatically sets the proper recording level – there is no need to adjust the VOLUME control to get the proper level.

USING THE TAPE 2 PAUSE BUTTON

To stop momentarily, press the TAPE 2 PAUSE button.



To start playback or recording again, press it again to release the TAPE 2 PAUSE button.



AUTO STOP FEATURE

If the end of tape is reached before the recording session is over, the TAPE 1 PLAY and TAPE 2 PLAY and RECORD buttons are released and recording stops automatically.

RECORDING WITH EXTERNAL MICROPHONES

Connect external microphones (not provided) to the L and R MICROPHONE jacks. When the external microphones are connected, the built-in mics are disconnected.

When only one external microphone is plugged in, one side of the built-in MICROPHONE is still active.

Note: When you plug in the microphone, insert it until you feel slight "catch." Do not force the plug all the way in.

RECORDING WITH AN EXTERNAL SOURCE

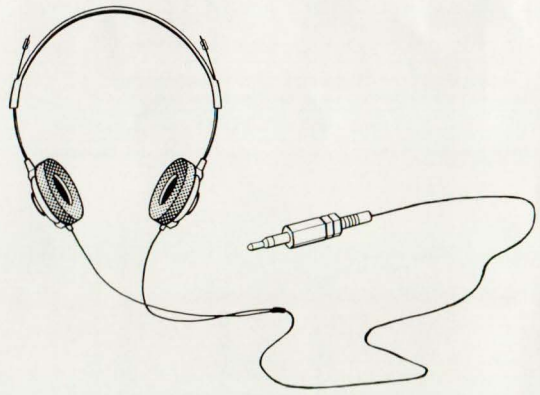
You can record from a tuner, radio or TV. Obtain a dubbing cord such as our 42-2152 or 42-2461 and connect it between the LEFT and RIGHT external MICROPHONE jacks on the unit and earphone jack or tape out jack of the external tuner, radio etc. Then proceed with recording as outlined.

ERASING A RECORDING

Any previous recording is erased automatically when you make a new recording over a tape. For the fastest and most complete erasing of a cassette, use our bulk tape eraser. It will erase both sides of a tape.
Another method is to insert the special dummy plug (not provided) into both LEFT and RIGHT external MICROPHONE jacks. Then, operate the SCR-29 as though you were recording. As the tape moves, it is erased. No sound is picked up when using these dummy plugs. Use the tape counter to make sure you erase the right portion!

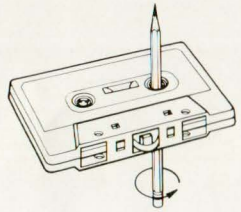
LISTENING THROUGH A HEADPHONE

You can use a headphone (not provided) for private listening. Just plug it into the HEADPHONE jack on the left side of the unit. This disconnects the internal speakers automatically.



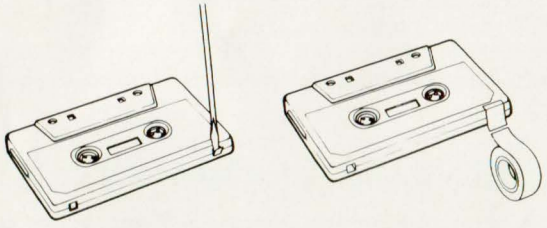
TAPE TIPS AND TECHNIQUES

Before inserting the cassette, take up any slack in the tape with the six-sided edge of a pencil, held on a slant. Avoid touching the tape. Unless the tape is tight, it may wind around the head mechanism and trouble may result.



ACCIDENTAL ERASURE PREVENTION

Cassettes have a built-in device to automatically prevent erasure of a previous recording. It is a small plastic tab at the back of the cassette. To activate the erase-protect feature, break off the plastic tab with a screwdriver. There is a tab for each side; be sure you break off the correct one. (See Figure A) The right tab corresponds to the tape side facing up. If you want to record again on that cassette, just put a piece of tape over the hole where you broke off the tab. (See Figure B)



A B

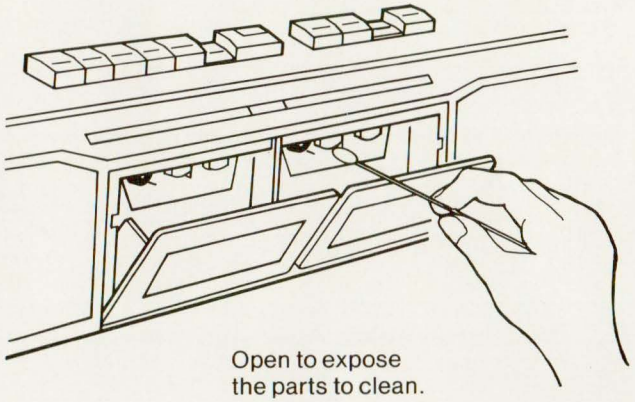
Caution: If you have loaded a cassette with the tabs broken off, don't try to force the RECORD button down. You can damage a part of the mechanism by forcing the RECORD button.

Periodically, approximately every 20 hours of operation, clean the tape head and tape handling parts with cotton tips (Radio Shack Catalog Number 44-1093) and head cleaner (44-1010). Or, use a cassette head cleaner cartridge (44-1160). It is absolutely vital that you clean the head and tape handling parts or you'll end up with tape wrap-ups. These can damage the tape, distortion and cause poor frequency response.

ITEMS TO CLEAN

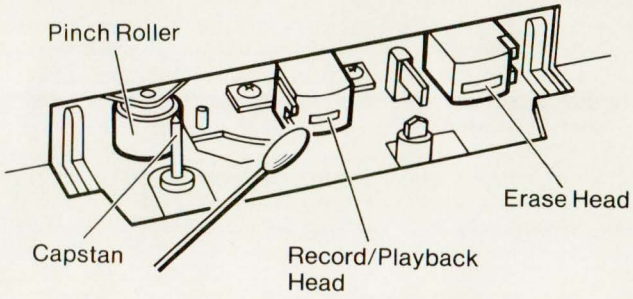
Remove the batteries.

With both cassette compartments open, press both PLAY buttons.



Open to expose the parts to clean.

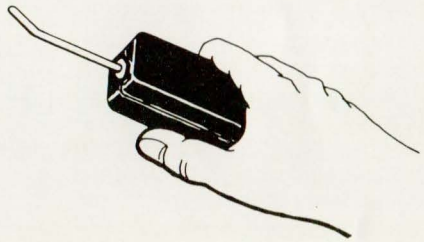
When the mechanism moves out, the parts you need to clean will be exposed.



Radio Shack's Head Cleaning Sticks Cat. No. 44-1093 and Head Cleaner Solvent Cat. No. 44-1171 are recommended for all cassette decks.

When the mechanism moves out, you will find it is still somewhat recessed. You may prefer cleaning the mechanism with a cassette such as Radio Shack's Cassette Head Cleaner Cat. No. 44-1163.

Periodically demagnetize the tape head, too. Use one of our tape head demagnetizers.



MAINTENANCE

Your SCR-29 represents a fine example of electronic engineering and construction. As such it should be treated accordingly. We offer the following suggestions so you will enjoy this product for many years to come.

If at anytime you suspect that your unit is not performing as it should, stop by your local Radio Shack store. Our personnel are there to assist you and arrange for service, if needed.

Keep it dry. If water should get on it, wipe it off immediately. Water contains minerals that can corrode electronic circuits.

Do not store in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and can even distort or melt certain plastics.

Do not drop your product. This will likely result in failure to operate. Circuit boards can crack and cases may not survive the impact. Handling your product roughly will shorten its useful life.

Do not use or store in areas of high levels of dirt or dust. The electronics may be contaminated. Any moving parts will wear prematurely.

Do not use harsh chemicals, cleaning solvents or strong detergents to keep your unit looking new. You need only wipe it with a dampened cloth from time to time.

Always make sure any batteries used are fresh and are of the correct type. Never use general purpose batteries if alkaline cells are called for. Old or almost-dead batteries are also dangerous. A worn out battery can leak chemicals which will destroy electronic circuits.

PROBLEMS?

Your unit should give you years of trouble-free service if you follow the instructions for operation, care and maintenance in this manual. If you do have problems, the chart below can help you solve them. If difficulties persist, take the unit to your local Radio Shack store for assistance.

SYMPTOMS	CAUSE
The cassette tape does not rest in place.	The tape is being inserted in reversed direction.
The PLAY button does not lock in the down position.	The tape is at its end.
The RECORD button cannot be pressed down.	No tape is inserted in the compartment. A tape with the safety tabs removed is inserted. The PLAY button is in its down position.
The tape does not run.	The batteries are not installed properly. The batteries are weak. The AC line cord is not inserted correctly. The PAUSE button is in the depressed position.
The tape does not run on battery.	The power cord is inserted in the AC INPUT jack on the recorder.
The sound is weak or distorted.	Dirty Record/Play and Erase heads. The batteries are weak.
The radio will not play.	The FUNCTION button is in the TAPE position. For AM, turn the unit. For FM, extend and adjust the telescopic antenna.
The previous recording cannot be erased.	The Erase head is contaminated.
The tape runs but no sound.	The VOLUME control is at its minimum position. The headphone is connected to the HEADPHONE jack.

SPECIFICATIONS

Radio Frequency Range
- AM ..... 520 ~ 1620kHz
- FM ..... 88 ~ 108MHz

Tape System ..... Stereo, Four Track
Tape Speed ..... 1-7/8 ips (4.75cm/second)
Wow and Flutter ..... 0.15% (WRMS)(WTD)
Signal-to-Noise Ratio 46dB
Circuit ..... 8 integrated circuit, 15 transistor, 3 LED
Erase System ..... AC Erase
Record System ..... AC Bias
Record/Play Head ..... Permalloy
Erase Head ..... Ferrite
Speakers
- Woofer ..... 100mm x 2
- Tweeter ..... 20mm x 2

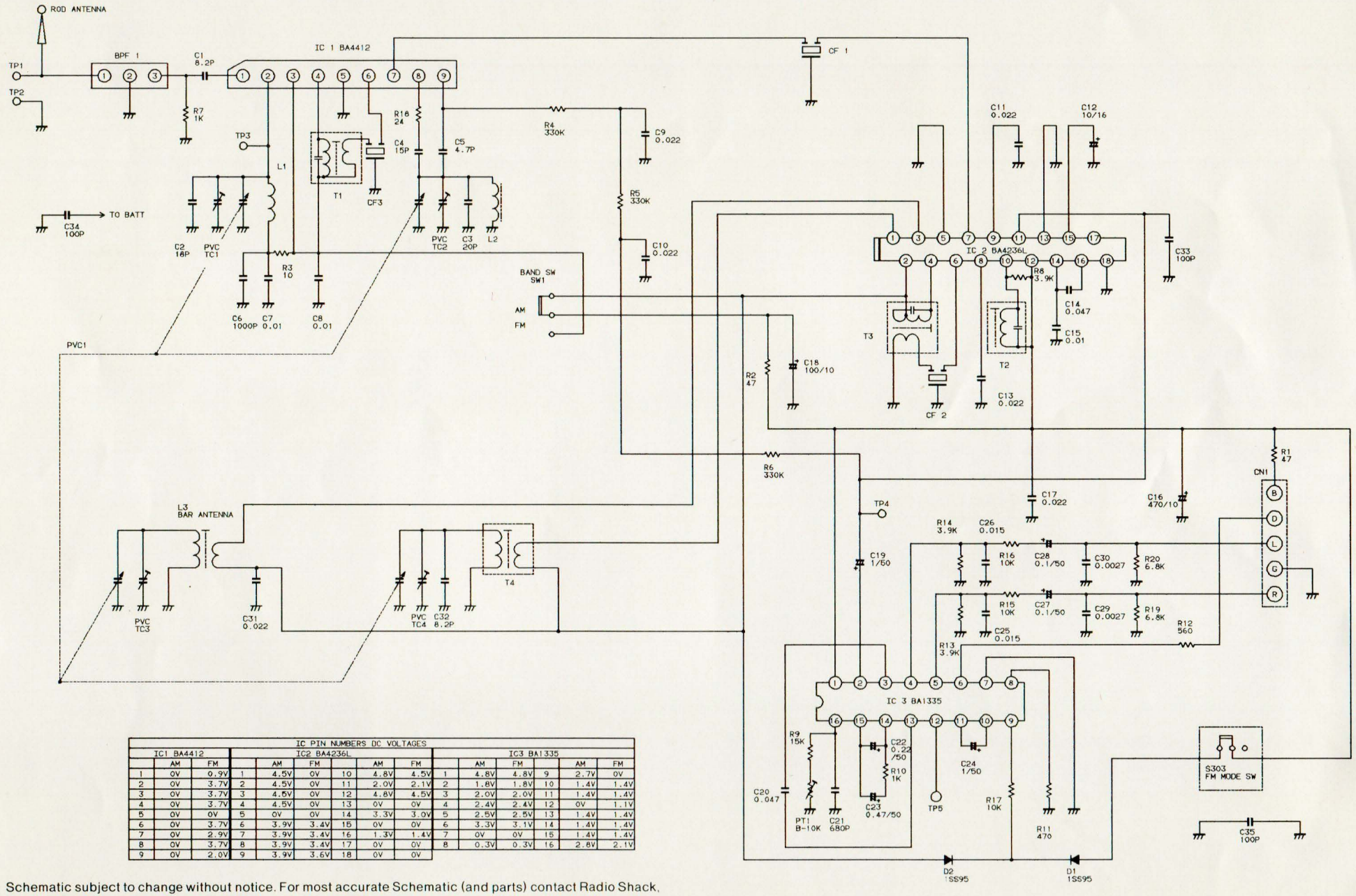
Maximum output power 3Watts/channel
Power Requirements
- AC ..... 120V, 60Hz AC
- DC ..... D batteries x 6
- DC ..... External DC 9V Jack (Auto Adapter Cat. No. 270-1562)

Frequency Response ..... 100Hz ~ 10kHz
Antenna
- AM ..... Built-in Ferrite Bar
- FM ..... Telescoping

Jacks
- L/R MICROPHONE ..... 4.7kΩ (3.5mm diameter)
- HEADPHONE ..... 68Ω (3.5mm diameter)

Dimensions ..... 18-3/8" x 4-1/8" x 3-3/8" (468mm x 125mm x 86mm)
Weight ..... 7.7 Lbs. (3.5kg) (including batteries)

TUNER SCHEMATIC DIAGRAM

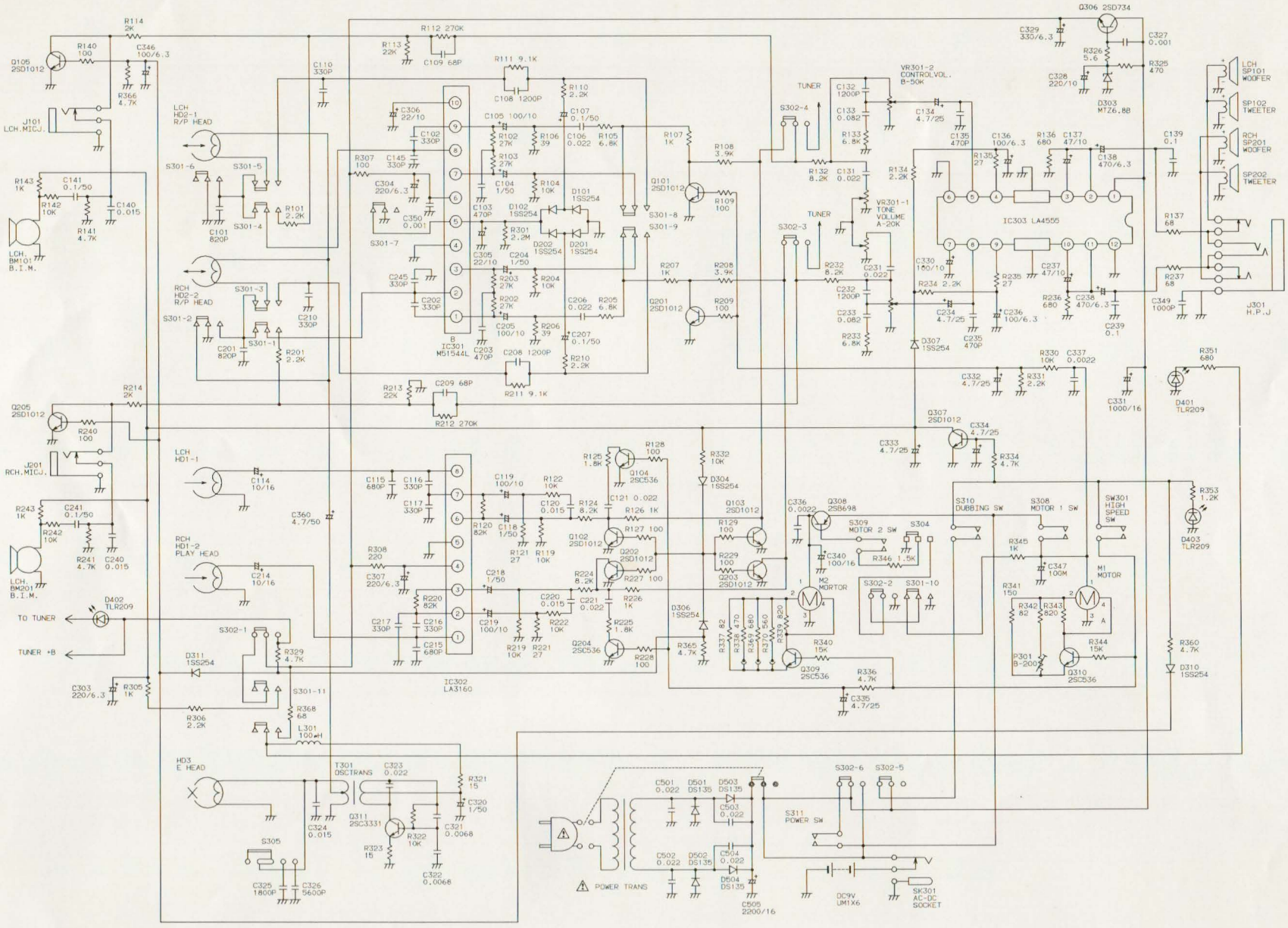


IC PIN NUMBERS DC VOLTAGES

IC1 BA4412			IC2 BA4236L						IC3 BA1335					
	AM	FM		AM	FM		AM	FM		AM	FM		AM	FM
1	0V	0.9V	1	4.5V	0V	10	4.8V	4.5V	1	4.8V	4.8V	9	2.7V	0V
2	0V	3.7V	2	4.5V	0V	11	2.0V	2.1V	2	1.8V	1.8V	10	1.4V	1.4V
3	0V	3.7V	3	4.5V	0V	12	4.8V	4.5V	3	2.0V	2.0V	11	1.4V	1.4V
4	0V	3.7V	4	4.5V	0V	13	0V	0V	4	2.4V	2.4V	12	0V	1.1V
5	0V	0V	5	0V	0V	14	3.3V	3.0V	5	2.5V	2.5V	13	1.4V	1.4V
6	0V	3.7V	6	3.9V	3.4V	15	0V	0V	6	3.3V	3.1V	14	1.4V	1.4V
7	0V	2.9V	7	3.9V	3.4V	16	1.3V	1.4V	7	0V	0V	15	1.4V	1.4V
8	0V	3.7V	8	3.9V	3.4V	17	0V	0V	8	0.3V	0.3V	16	2.8V	2.1V
9	0V	2.0V	9	3.9V	3.6V	18	0V	0V						

Schematic subject to change without notice. For most accurate Schematic (and parts) contact Radio Shack, National Parts Dept., Fort Worth, TX 76101
U.K.: BILSTON ROAD WEDNESBURY WEST MIDLANDS WS 107 JN
AUSTRALIA: 91 KURRAJONG AVENUE MOUNT DRUITT. N.S.W. 2770

AMPLIFIER SCHEMATIC DIAGRAM



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AUSTRALIA: 91 KURRAJONG AVENUE MOUNT DRUITT. N.S.W. 2770

RADIO SHACK LIMITED WARRANTY

This product is warranted against defects for 90 days from date of purchase from Radio Shack company-owned stores and authorized Radio Shack franchisees and dealers. Within this period, we will repair it without charge for parts and labor. Simply **bring your Radio Shack sales slip** as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover a product subjected to misuse or accidental damage.

EXCEPT AS PROVIDED HEREIN, RADIO SHACK MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

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